Serial No. 10/630,223

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

 (currently amended) A multivalent conjugate molecule comprising a carrier protein covalently linked to at least three different types of purified bacterial capsular polysaccharides,

wherein each type of said at least three different types of the purified bacterial capsular polysaccharides is obtained from a different serotype of bacteria by treating the bacteria with an enzyme or base, directly followed by separation to isolate and purify said at least three different types of the purified bacterial capsular polysaccharides.

wherein each polysaccharide of the at least three types of the purified bacterial caspular polysaccharides has a molecular weight in the range of 80 - 120 kDa, and wherein the multivalent conjugate molecule elicits protective antibodies.

- (currently amended) The conjugate molecule of claim 1, wherein a total of four different types of the purified bacterial capsular polysaccharides constitute said at least three different types of the purified bacterial capsular polysaccharides.
- (currently amended) The conjugate molecule of claim 1, wherein a total of five different
 types of <u>the</u> purified bacterial capsular polysaccharides constitute said at least three
 different types of the purified bacterial capsular polysaccharides.

(currently amended) The conjugate molecule of claim 1, wherein a total of six different
types of <u>the</u> purified bacterial capsular polysaccharides constitute said at least three
different types of <u>the</u> purified bacterial capsular polysaccharides.

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- (original) The conjugate molecule of claim 1, wherein the carrier protein is selected from the group consisting of Cα, Cβ, tetanus toxoid, diphtheria toxoid, diphtheria toxoid analog CRM197, and a porin protein.
- 6. (currently amended) The conjugate molecule of claim 1, wherein the at least three different types of the purified bacterial capsular polysaccharides are different Group B Streptococcus capsular polysaccharides selected from the group consisting of type Ia, type II, type II, type II, type V, and type VIII.
- (previously presented) The conjugate molecule of claim 6, wherein the Group B
 Streptococcus capsular polysaccharides are type Ia, type III and type V.
- (previously presented) The conjugate molecule of claim 7, wherein the carrier protein is Cβ.
- 9. (cancelled)

- 10. (currently amended) The conjugate molecule of claim 6, wherein between about 5 and 20% of the sialic acid residues of the different Group B streptococcus bacterial eapsular polysaccharides are covalently linked to the carrier protein.
- (previously presented) The conjugate molecule of claim 6, wherein the different Group B
 Streptococcus capsular polysaccharides are present in equimolar amounts.
- (withdrawn) The conjugate molecule of claim 1, wherein the bacterial capsular
 polysaccharides are Neisseria meningitidis capsular polysaccharides selected from the
 group consisting of A, B, C, W, and Y.
- (withdrawn) The conjugate molecule of claim 12, wherein the Neisseria meningitidis
 capsular polysaccharides are B, C, and Y.
- (withdrawn) The conjugate c molecule of claim 12, wherein the Neisseria meningitidis capsular polysaccharides are C, Y, and W-135.
- (withdrawn) The conjugate molecule of claim 12, wherein the carrier protein is a porin
 protein, tetanus toxoid, or CRM197.
- (withdrawn) The conjugate molecule of claim 14, wherein the carrier protein is tetanus toxoid.

- 17. (withdrawn) A method of preparing a multivalent conjugate molecule, the method comprising covalently linking at least three different bacterial capsular polysaccharides to a carrier protein.
- (withdrawn) The method of claim 17, wherein covalently linking the bacterial capsular polysaccharides to the carrier protein comprises steps of:
 - (a) oxidizing the polysaccharides;
 - (b) coupling the-oxidized polysaccharides to the carrier protein.
- (withdrawn) The method of claim 18, wherein the polysaccharides are coupled to the carrier protein by reductive animation.
- (withdrawn) The method of claim 18, wherein the polysaccharides are conjugated to the carrier protein by a bispacer coupling with a linker.
- (withdrawn) The method of claim 17, wherein the carrier protein is selected from the group consisting of Cα, Cβ, tetanus toxoid, diphtheria toxoid, diphtheria toxoid analog CRM197, and a porin protein.
- 22. (withdrawn) The method of claim 17, wherein the bacterial capsular polysaccharides are different Group B Streptococcus capsular polysaccharides selected from the group consisting of type Ia, type Ib, type II, type III, type V, and type VIII.

- (withdrawn) The method of claim 22, wherein the Group B Streptococcus capsular polysaccharides are type Ia, type III, and type V.
- 24. (withdrawn) The method of claim 23, wherein the carrier protein Cβ.
- (withdrawn) The method according to claim 22, wherein between about 5 and 20% of the sialic acid residues of the bacterial capsular polysaccharides are oxidized.
- (withdrawn) The method according to claim 22, wherein between about 5 and 20% of the sialic acid residues of the bacterial capsular polysaccharides are coupled to protein.
- 27. (withdrawn) The method of claim 17, wherein the bacterial capsular 2 polysaccharides are Neisseria meningitidis capsular polysaccharide selected from the group consisting of A, B, C, W, and Y.
- (withdrawn) The method of claim 27, wherein the Neisseria meningitidis capsular polysaccharides are B, C, and Y.
- (withdrawn) The method of claim 27, wherein the Neisseria meningitidis capsular polysaccharides are C, Y, and W-135.
- (withdrawn) The method of claim 27, wherein the camer protein is recombinant porin B, tetanus toxoid, or CRM197.

- 31. (withdrawn) The method of claim 29, wherein the carrier protein is tetanus toxoid.
- 32. (withdrawn) A method of preventing or attenuating an infection in a mammal, the method comprising administering to the mammal a multivalent conjugate molecule comprising a carrier protein with at least three different bacterial capsular polysaccharides covalently linked to the carrier protein, wherein the multivalent conjugate molecule is administered in an amount sufficient to elicit protective antibodies against the bacterial capsular polysaccharides.
- 33. (withdrawn) The method of claim 32, wherein the carrier protein is selected from the group consisting of Cα, Cβ, tetanus toxoid, diphtheria toxoid, diphtheria toxoid analog CRM197, and a porin protein.
- 34. (withdrawn) The method of claim 32, wherein the multivalent conjugate molecule is administered to prevent or attenuate an infection caused by Group B Streptococcus and the bacterial capsular polysaccharides of the conjugate molecule are different Group B Streptococcus capsular polysaccharides selected from the group consisting of type Ia, type II, type II, type III, type V, and type VIII.
- (withdrawn) The method of claim 34, wherein the Group B Streptococcus polysaccharides are type Ia, type III and type V.

- 36. (withdrawn) The method of claim 35, wherein the carrier protein is CB.
- 37. (withdrawn) The method of claim 32, wherein the multivalent conjugate molecule is administered to prevent or attenuate an infection caused by Neisseria meningitidis and the bacterial capsular polysaccharides of the conjugate molecule are different Neisseria meningitidis capsular polysaccharides selected from the group consisting of A, B, C, W, and Y.
- (withdrawn) The method of claim 37, wherein the Neisseria meningitidis capsular polysaccharides are B. C. and Y.
- (withdrawn) The method of claim 37, wherein the Neisseria meningitidis capsular polysaccharides are C, Y, and W-135.
- (withdrawn) The method of claim 37, wherein the camer protein is recombinant porin B tetanus toxoid, or CRM197.
- 41. (withdrawn) The method of claim 39, wherein the carrier protein is tetanus toxoid.
- (currently amended) A pharmaceutical composition comprising a pharmaceutically acceptable carrier; and

multivalent conjugate molecules, wherein each multivalent conjugate molecule comprises a carrier protein with at least three different types of purified bacterial capsular polysaccharides covalently linked to said carrier protein.

wherein each type of the at least three different types of the purified-baeterial capsular polysaccharide[[s]] is obtained from a different serotype of bacteria by treating the bacteria with an enzyme or base, directly followed by separation to isolate and purify the at least three different types of the purified baeterial capsular polysaccharide[[s]],

wherein each polysaccharide of the at least three <u>different</u> types of <u>the</u> purified bacterial capsular <u>capsular</u> polysaccharides has a molecular weight in the range of 80 - 120 kDa. and

wherein the multivalent conjugate molecules are present in said composition in an amount sufficient to elicit protective antibodies against said the at least three different types of the purified bacterial capsular polysaccharides.

- 43. (original) The pharmaceutical composition of claim 42, wherein the carrier protein is selected from the group consisting of Cα, Cβ, tetanus toxoid, diphtheria toxoid, CRM197, and a porin protein.
- 44. (currently amended) The pharmaceutical composition of claim 42, wherein the at least three different types of the purified bacterial capsular polysaccharides are different Group B Streptococcus capsular polysaccharides selected from the group consisting of type Ia, type Ib, type II, type III, type V, and type VIII.

- (original) The pharmaceutical composition of claim 44, wherein the Group B
 Streptococcus capsular polysaccharides are type Ia, type III and type V.
- 46. (original) The pharmaceutical composition of claim 45, wherein the carrier protein is CB.
- 47. (withdrawn) The pharmaceutical composition of claim 42, wherein the bacterial capsular polysaccharides of the immunogenic molecule are different Neisseria meningitidis capsular polysaccharides selected from the group consisting of A, B, C, W, and Y.
- (withdrawn) The pharmaceutical composition of claim 47, wherein the Neisseria meningitidis capsular polysaccharides are B, C, and Y.
- (withdrawn) The pharmaceutical composition of claim 47, wherein the Neisseria meningitidis capsular polysaccharides are C, Y, and W-135.
- (withdrawn) The pharmaceutical composition of claim 47, wherein the carrier protein is tetanus toxoid, recombinant porin B or CRM197.
- (withdrawn) The pharmaceutical composition of claim 49, wherein the carrier protein is tetanus toxoid.
- (cancelled)

- (withdrawn) The method of claim 17, wherein the polysaccharides are less than 100 kilodaltons in molecular weight.
- (withdrawn) The method of claim 32, wherein the polysaccharides are less than 100 kilodaltons in molecular weight.
- (withdrawn) The composition of claim 42, wherein the polysaccharides are less than 100 kilodaltons in molecular weight.